

What is described here is a process for the initial growth of nitrogenous semiconductor crystal materials in the form  $A_XB_YC_zN_VM_W$  wherein A, B, C is an element of group II or III, N is nitrogen, M represents an element of group V or VI, and X, Y, Z, W denote the molar fraction of each element of this compound, using a, which are deposited on sapphire, SiC or Si, using various ramp functions permitting a continuous variation of the growth parameters during the initial growth.

This novel initial growth process is characterised by the aspect that during the initial growth process of the nitrogenous semiconductor crystal materials on sapphire, SiC or Si an abrupt change of the growth regime is not required for realising a structure suitable for the ongoing high-temperature growth: